

REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-20 are present in the application. Claims 1, 4-8, 11, 12, 14 and 15 have been amended and claims 18-20 have been added by this Amendment. Support for this Amendment can be found in the drawings and the specification as originally filed and Applicant asserts that no new matter has been added. Claims 1, 7 and 15 are independent. Reconsideration of this application, in view of the above amendment and remarks set forth below, is respectfully requested.

Rejection Under 35 U.S.C. § 112

Claims 4 and 11 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner asserts that claims 4 and 11 refer to, "wherein the trap filter eliminates a frequency signal of a channel bandwidth in each broadcasting system" and that this language renders the claim unclear as to what each broadcasting system is.

In response, Applicant has amended claims 4 and 11 to render the claims clear and to distinctly claim the subject matter of the present invention, thus rendering the Examiner's rejection moot. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 112 are respectfully requested.

Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1, 5-8, 10 and 12-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hartford et al. (U.S. Patent No. 5,337,091, hereinafter "Hartford"); and claims 2, 3, 9, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hartford. These rejections are respectfully traversed.

Amended independent claim 1 recites that a tuner includes “an RF (radio frequency) processing unit; an IF (intermediate frequency) demodulating unit for demodulating an intermediate frequency signal outputted from the RF processing unit; and a trap filter disposed at a video baseband signal line of the IF demodulating unit to eliminate noise of a video baseband signal, wherein the IF demodulating unit comprises a video detector outputting a video signal and a sound trap filter eliminating a sound signal from the video signal of the video detector.”

Applicant respectfully submits that Harford fails to teach these features of amended independent claim 1. Harford merely teaches a sound IF trap filter 41 disposed at an output port of an in-phase video detector 18 (see Fig. 1 of Hartford). The sound IF trap filter 41 of Harford is a 4.5MHz sound IF trap filter (see column 6, lines 53-62 of Hartford), which may correspond to the sound trap filter of claim 1. However, Harford fails to specifically disclose, “a trap filter disposed at a video baseband line of the IF demodulating unit to eliminate noise of a video baseband signal.” Therefore, Hartford fails to teach or suggest the features of amended independent claim 1. Accordingly, amended independent claim 1 is allowable over Harford. Further, claims 2-6 and new claim 18 depend from independent claim 1 and thus are allowable over Harford for at least the same reason as claim 1.

Amended independent claim 7 recites that a demodulating unit of a tuner includes “a first filter; a sound signal processing line diverging from the first filter to process a sound signal; a video signal processing line diverging from the first filter to process a video signal; a sound trap filter eliminating a sound signal from an output signal of the first filter and disposed at the video signal processing line; and a trap filter disposed at an output side of a sound trap filter to eliminate a beat component.”

Harford fails to teach the trap filter of claim 7. Harford merely teaches that a sound IF trap filter 41 disposed at an output port of an in-phase video detector 18. The sound IF trap filter 41 of Harford is a 4.5MHz sound IF trap filter (see column 6, lines 53-62 of Hartford), which may correspond to the sound trap filter of claim 7. However, Harford fails to

specifically disclose, “a trap filter disposed at an output side of a sound trap filter to eliminate a beat component.” Therefore, Hartford fails to teach or suggest the features of amended independent claim 7. Accordingly, amended independent claim 7 is allowable over Harford. Further, claims 8-14 and new claim 19 depend from amended independent claim 7 and thus are allowable over Harford for at least the same reason as claim 7.

Amended independent claim 15 recites that a demodulating unit of a tuner includes “a sound signal processing line; a video signal processing line; a trap filter disposed at the video signal process line to eliminate a beat component generated due to a FM (frequency modulation) radio frequency; and a sound trap filter disposed at an input port of the trap filter.”

Harford fails to teach the trap filter of claim 15. Harford merely teaches that a sound IF trap filter 41 disposed at an output port of an in-phase video detector 18. The sound IF trap filter 41 of Harford is a 4.5MHz sound IF trap filter (see column 6, lines 53-62 of Hartford), which may correspond to the sound trap filter of claim 15. However, Harford fails to specifically disclose, “a trap filter disposed at the video signal process line to eliminate a beat component generated due to a FM (frequency modulation) radio frequency.” Therefore, Hartford fails to teach or suggest the features of amended independent claim 15. Accordingly, amended independent claim 15 is allowable over Harford. Further, claims 16 and 17 and new claim 20 depend from independent claim 15 and thus are allowable over Harford for at least the same reason as claim 15.

For at least the reasons above, Applicant asserts that all claims in the present application are in condition for allowance. Reconsideration and withdrawal of all rejections under 35 U.S.C. §§ 102 and 103 are respectfully requested.

Additionally, Applicant respectfully submits that amended claim 1, 7 and 15 having the trap filter and the sound trap filter possesses the novelty and inventiveness as compared with Harford.

CONCLUSION

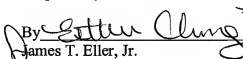
In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James T. Eller, Jr., Reg. No. 39,538, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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